UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND
TOXIC
SUBSTANCES

MEMORANDUM

September 15, 1992

SUBJECT: Review of "Simulation of Runoff of Myclobutanil and Its 1,2,4-Triazole Metabolite Under Conditions Of Use in New York Orchards And Vineyards.

Chemical: Myclobutanil (128857)
Chemical Name:
Product: 000707-00215 Rally 40W Agricultural Fungicide In Water Soluble Pouch
000707-00221 Nova 40W Agricultural Fungicide In 5 oz. Water Soluble Pouch
DP Barcode: 180763, 180767
EFGWB#: 92-1192 92-1335
Action Code: 320

TO: Susan Lewis
Product Manager
Registration Division

FROM: R. David Jones, Ph.D. R David Jones
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THROUGH: Henry Nelson, Ph.D. H Nelson
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The purpose of the orchard and vineyard modeling was not stated in the study report. The apparent purpose was too refute the assumption of aquatic risk to endangered species made by Ecological Effects Branch by demonstrating that the value used for the EEC in the risk assessment was higher than that for the actual worst case for use patterns of the chemical. The study "Simulation of Runoff of Myclobutanil and Its 1,2,4-Triazole Metabolite Under Conditions of Use In New York Orchards and Vineyards" cannot be used to rebut the EEC calculated by Ecological Effects Branch. The primary reason that the study cannot be used is that streams were simulated to calculate the EEC instead of ponds which generally more accurately reflect a reasonable worst. Secondly, a single set of soil data was used to represent all sites and this data was constructed by the registrant and does not represent any particular soil found in the regions of interest. Finally, the sources for the values used for many of the important parameters were either not documented or documented incorrectly. Specific details are given below.

1. EFGWB concurs that it is possible to make a rough EEC using the combination of GLEAMS and EXAMS II for scenarios where the surface is primarily covered with turf, including orchards and vineyards.

2. The current policy of the Environmental Fate and Effects Division is to use a 1 acre pond, 6 ft deep to represent the worst case of pesticide loading to aquatic environments. The EEC's calculated using a stream are not acceptable for refuting the assumption of risk.

3. EFGWB concurs that the four general regions selected, the Hudson Valley, the Lake Ontario shore, the Lake Erie shore, and the Finger Lakes area are representative of the regions where grapes and apples are grown in New York. However, a single scenario was used to represent all four regions. Separate scenarios should be modeled for all four regions, or documentation provided as to why a single modeling run can be used to represent all four.

4. Insufficient information is provided to make a determination of whether the soil parameters selected are appropriate to represent the worst case for the four regions. Parameters which represent real soils should be used for the simulations. Documentation should be provided of which soil series are used to grow the crops in these regions and some determination of which of these soils represents a worst case.

5. It would be preferable that real weather data be used over generated data when available. Weather should be selected that represent a reasonable worst case. For example, select a year that represents a 1 year in 20 for total amount of rainfall.

6. Wischmeier and Smith, 1978 was used as a reference for the selection of the SCS curve number. However, this reference contains no material on curve numbers. It is particularly critical that the curve number, Manning's n, and the USLE factors be well documented as little data exist on movement of pesticides with runoff from turf and turf-like agricultural systems.

7. The values selected for erodability, porosity, bulk density, and saturated hydraulic conductivity are not documented or justified.

8. The orchard/vineyard size and shape are not justified. The size and shape of the fields should be typical for the regions of interest and values selected documented and justified.

9. The specific version of GLEAMS and EXAMS II should be given with the date stamp for both programs.

10. Input files should be provided by the registrant so that it can be verified that the input data presented do in fact produce the output that is discussed.

The Surface Water Section of EFGWB will be glad to provide guidance to the registrant if they desire to prepare a replacement study.

cc: Heather Mansfield
Alan Vaughan